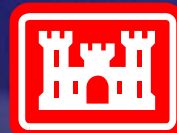


Port Everglades Harbor

Broward County, Florida



U.S. Army Corps of Engineers
Jacksonville District

Presentation Overview

- History
- Feasibility Phase
- Problems
- Engineering Considerations
- Economic Analysis
- Questions



History

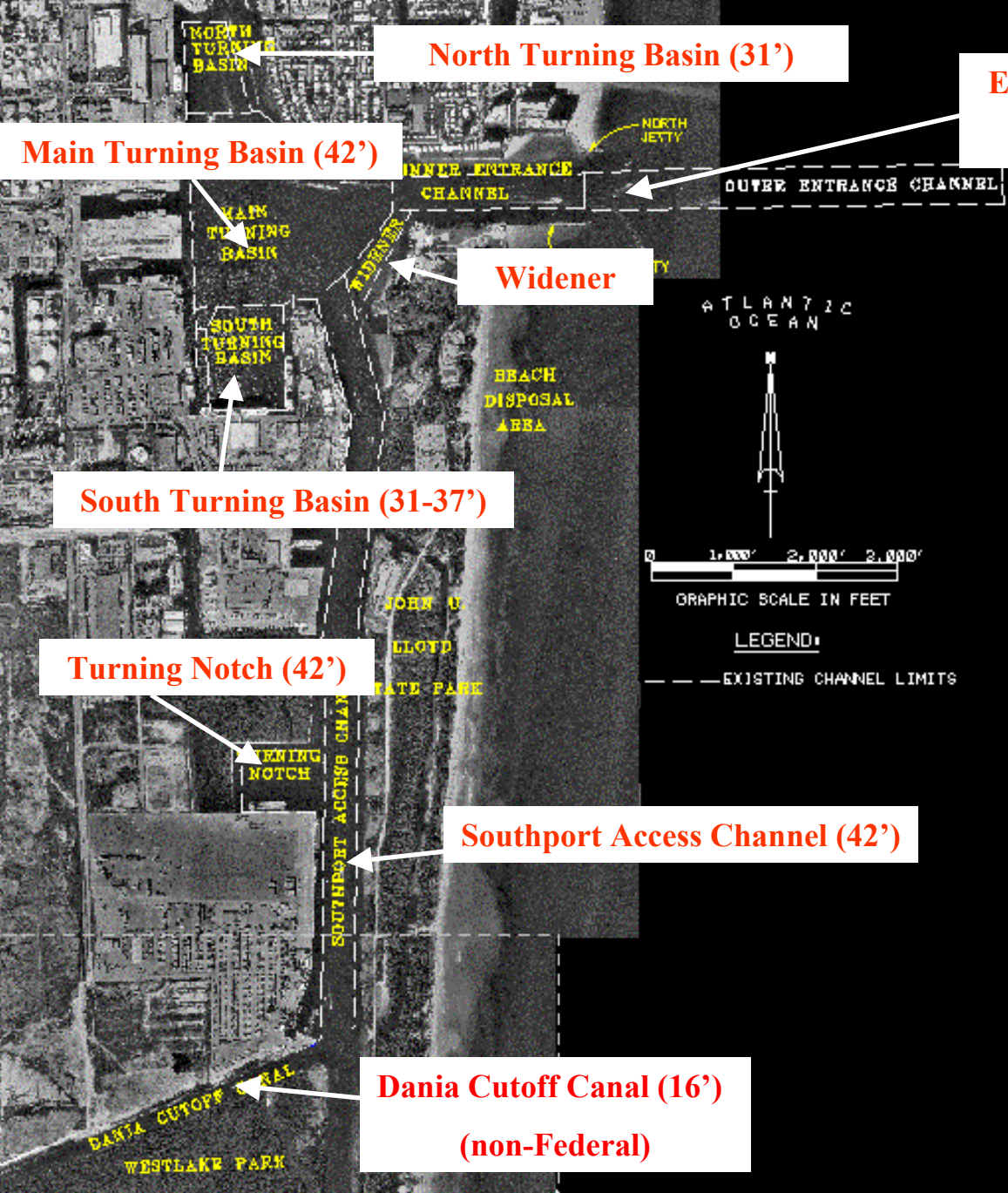
- Study Initiated - 1997
 - Scope revised for Port Expansion - 1999
 - Draft Feasibility Report - 2002
 - AFB - 2002
 - Re-formulate Plans – 2002/2003
 - Review & revision for additional ship simulation and pilot concerns – 2003/2004
 - Revised Draft Feasibility Report - Current
-

Feasibility Phase

- Scope of Study, Coordination Goals
 - Identify Problems
 - Gather Information
 - Formulate Plans
 - Evaluate and Compare Plans
 - Identify a Recommended Plan
 - Prepare Report
 - Reviews and Finalization
-

Study Coordination

- Open planning process utilized:
 - Federal Agencies: Corps, USCG, US Navy, USEPA, USFWS, NMFS
 - State Agencies: FDEP, FWC, SFWMD
 - County Agencies: Port, Airport, Parks and Recreation, BC Department of Environmental Protection
 - Non-Government Agencies: Pilots and Users, NOVA, STAR, citizens
-



Existing Federal Project (with depths)

Problems

- Strong currents in Outer Entrance Channel
 - Width restrictions at Widener shoal, Knuckle, and USCG Station
 - Southport Access Channel width restrictions
 - Turning Notch Dimensions
 - Existing channel depths
 - Port is berth deficient
 - Inefficient distribution of vessel types and sizes
-

Engineering Considerations

- Hydrographic and land surveys
 - Aerial photography
 - Characterize waves, tides, winds
 - Determine shoaling rates, sediment transport
 - Salinity measurements
 - Current measurements
 - Characterize bottom materials – rock, sand, fines through use of core borings
-

Environmental Considerations

- Seagrass Impacts & mitigation
 - Mangrove Impacts & mitigation
 - Previous mitigation areas
 - Conservation easement
 - John U Lloyd State Park
 - Offshore Reef
 - Essential Fish Habitat, Threatened and Endangered Species
-

Plans Considered

Non-Structural

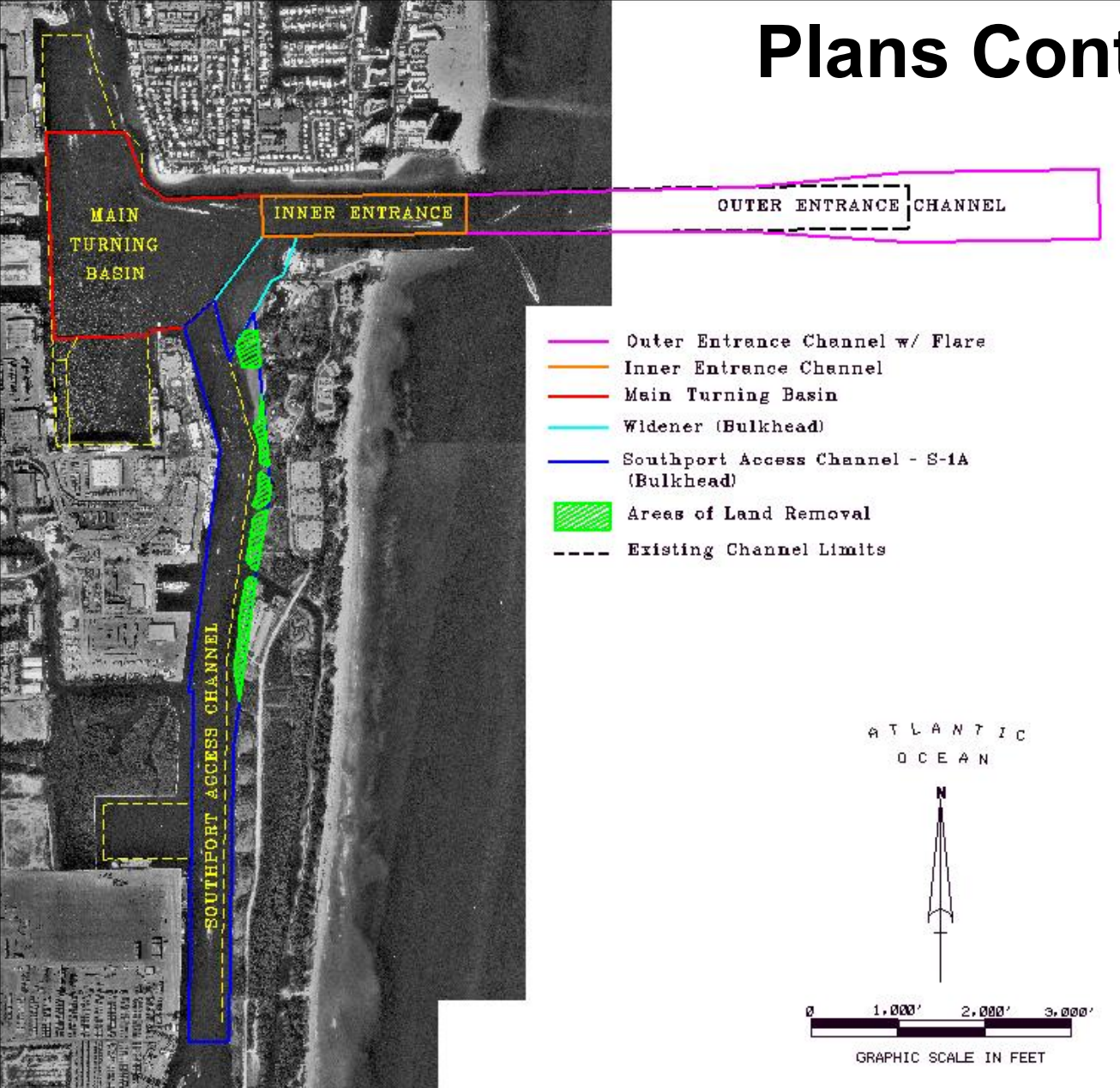
- NS-1
 - Allow facilities to be used as presently designed (No Action)
- NS-2
 - Add more Surface Docking Modules or similar tugs
- NS-3
 - Transit of future large vessels in a light loaded condition with no vessels at Berths 24-29
- NS-4
 - Transit of Panamax vessels to Berths 16,17, and 18 in light loaded condition

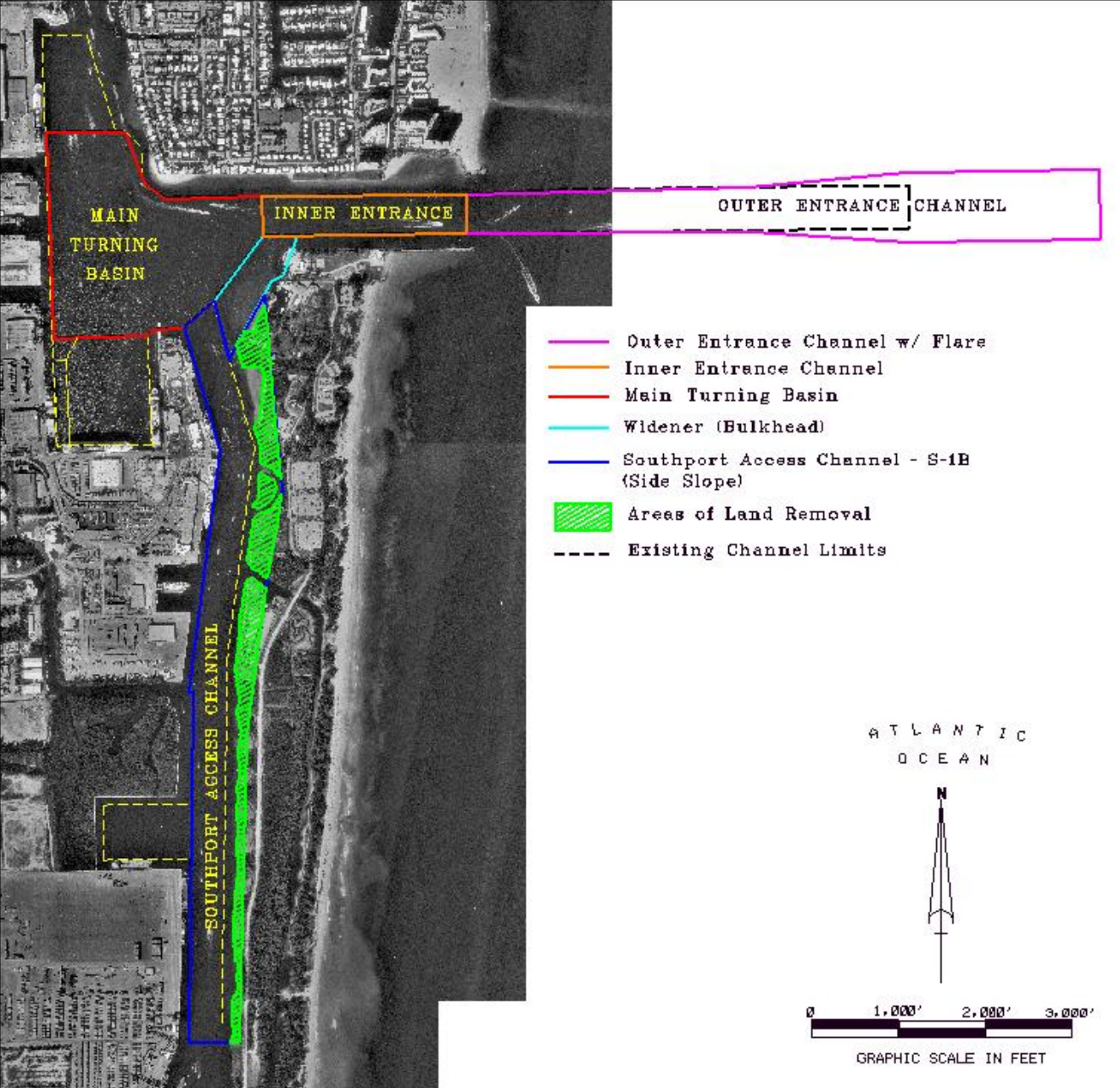
Plans Continued

Structural

Plan S-1A

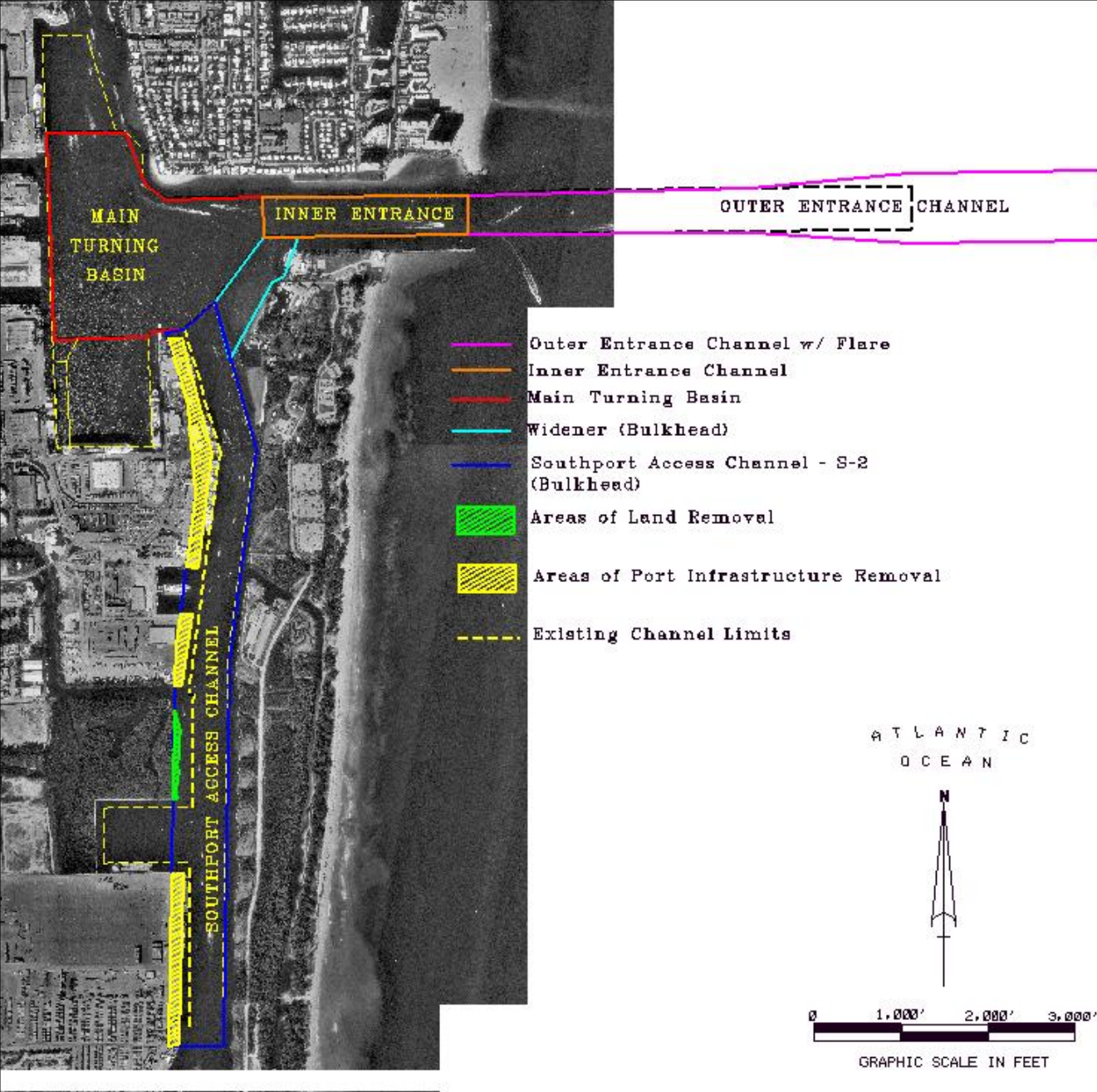
- Eastern widening and deepening of the SAC,
- “Environmentally friendly” bulkhead along John U. Lloyd Park,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.





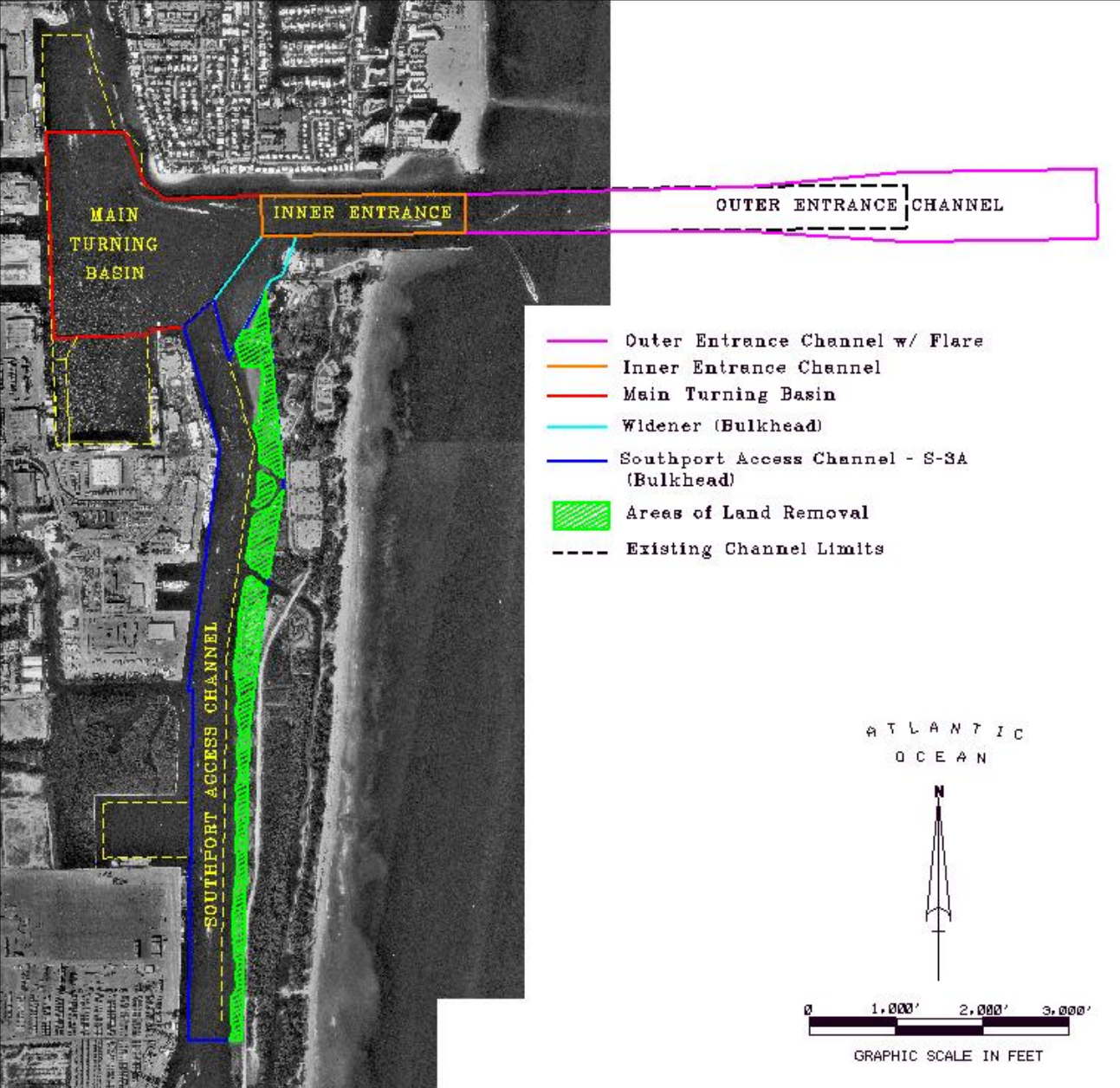
Plan S-1B

- Eastern widening and deepening of the SAC,
- Side slopes along John U. Lloyd Park ,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.



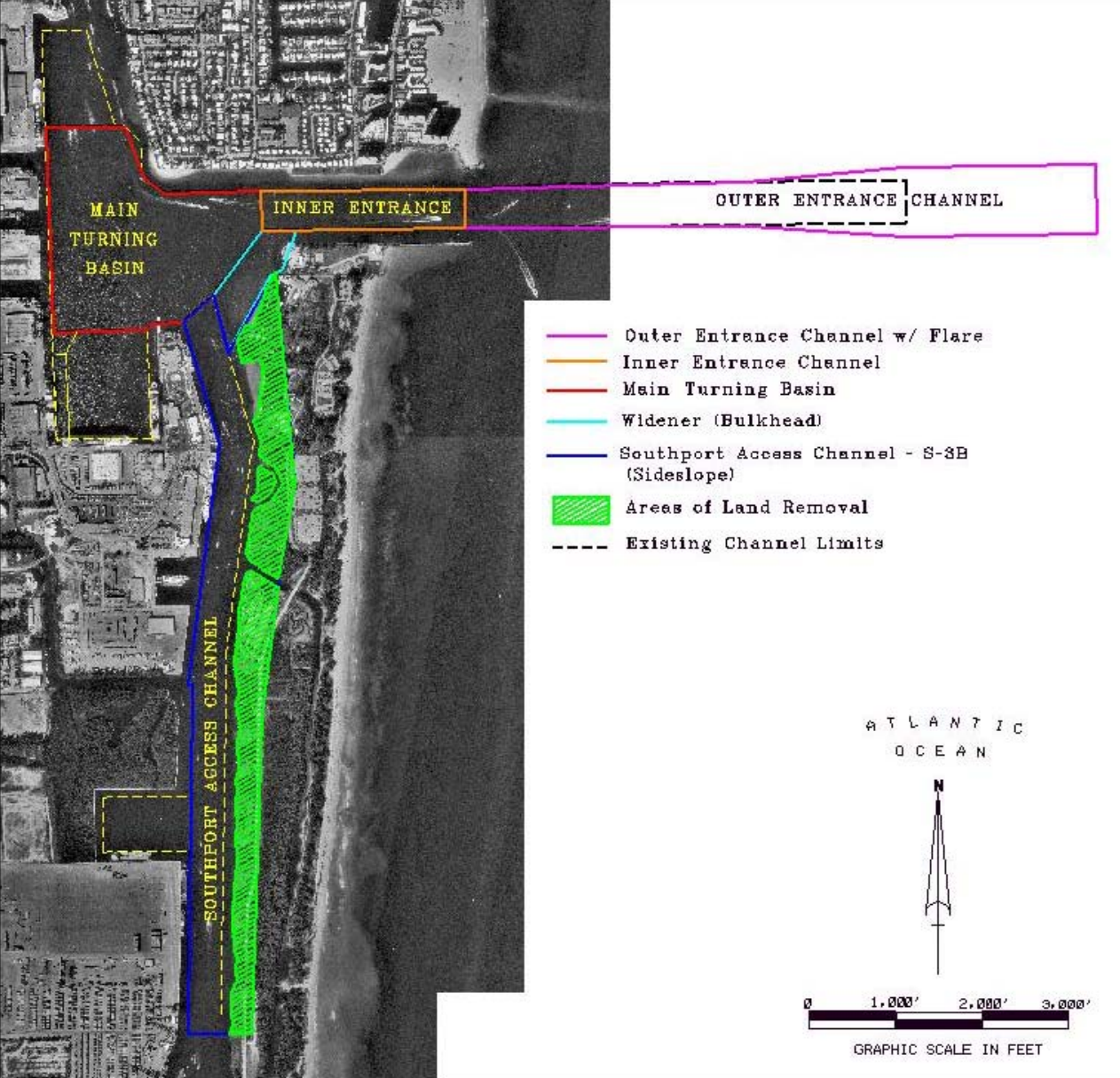
Plan S-2

- Western widening and deepening of the SAC,
- “Environmentally friendly” bulkhead along John U. Lloyd Park,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.



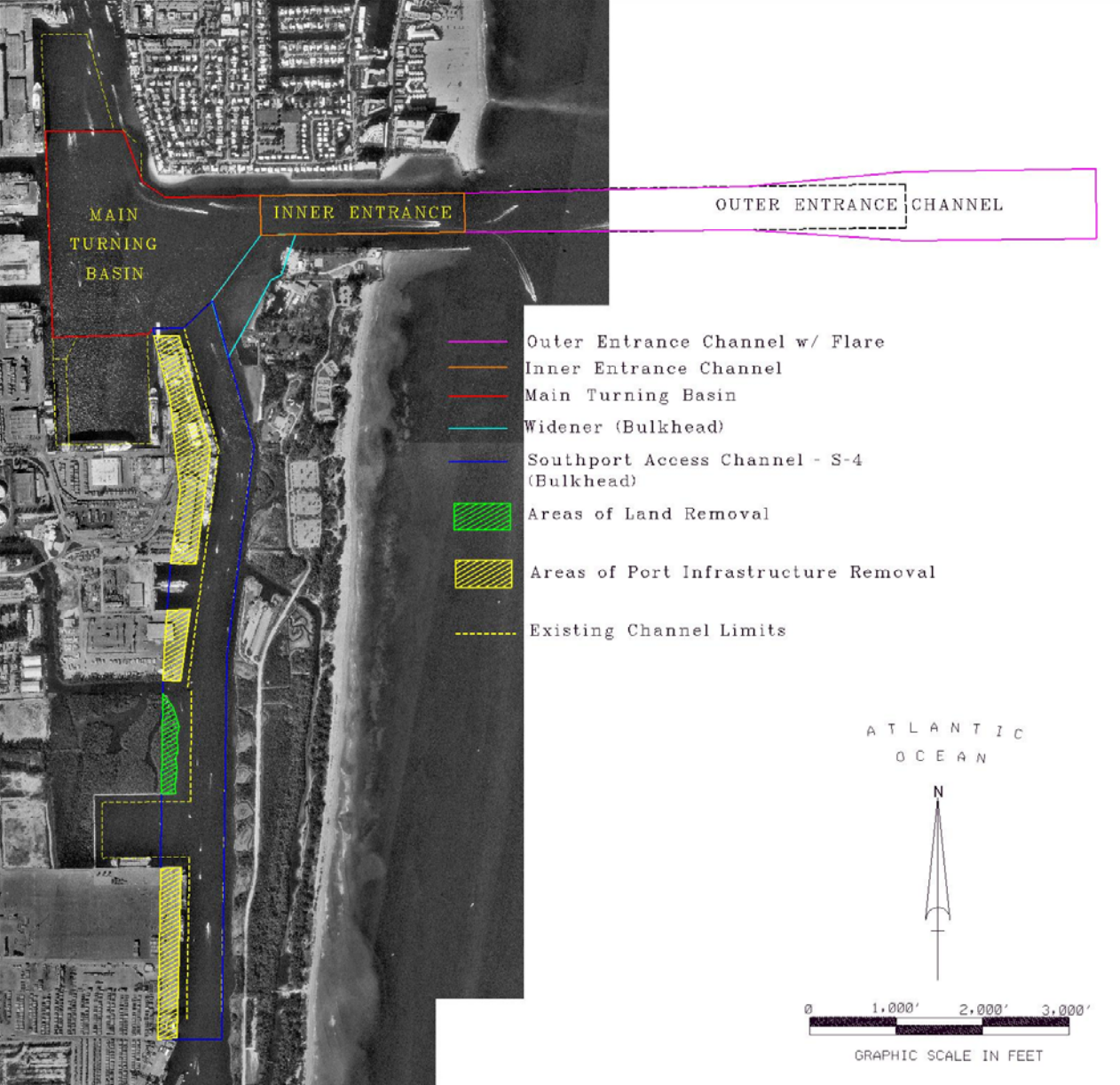
Plan S-3A

- Eastern widening and deepening of the SAC,
- “Environmentally friendly” bulkhead along John U. Lloyd Park ,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.



Plan S-3B

- Eastern widening and deepening of the SAC,
- Sideslope along John U. Lloyd Park,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.



Plan S-4

- Western widening and deepening of the SAC,
- Side slopes along John U. Lloyd Park ,
- OEC deepening, IEC and MTB deepening,
- Widener deepening.